

Azure® Digi-Motor® Direct Drive Blower Applications

Ball Bearing

Azure® Digi-Motor® from MARS is a high efficiency variable speed direct drive blower motor for a multitude of applications. Azure® is a replacement for both standard PSC and Genteq X13 motors. These motors cover ratings from 1/5 HP to 1 HP at 115V or 230V and CW or CCW.

Azure® features an auto sizing learn mode. In start-up learn mode, Azure® runs for approximately 2 minutes measuring the external static pressure of the system application. Azure® then assigns torque values to each of its speed taps self-programming itself to the correct horsepower for the application.

If none of the four speeds provides perfect airflow for the application or if duplicate speeds are desired on 2 or more taps, an optional hand held programmer (MARS No. 08502) can be used. The programmer connects to Azure® and displays the percentage of torque applied to the speed tap being energized. The percentage (motor speed) can then be increased or decreased and permanently set with the programmer. This tool overrides the motor torques established in the auto sizing mode.

Unlike other electronically commutated motors, an outboard surge protector is included within Azure's® wire harness. This is a replaceable device (MARS No. 08593).

Features:

- Outboard replaceable surge protector
- Adjustable speeds (with optional MARS No. 08502)
- 4 speeds plus 625 RPM constant fan mode
- High efficiency 85%
- Multi-horsepower, dual voltage
- Belly band mount

Specifications:

- Class "B" insulation
- Thermal overload protected
- Operating temperature range: -20°C to 55°C (-4°F to 131°F)
- UL Recognized
- For accessories see page M-5

MARS No.	External Surge Protection	Auto Sizing	Replaces
10858	No	Yes	X13
10859	No	Yes	X13
10860	Yes	Yes	PSC/X13
10861	Yes	Yes	PSC/X13
10865	No	No	PSC
10866	No	No	PSC
10867	No	No	PSC
10868	No	No	Variable Speed
10869	No	No	Variable Speed

MARS NO.	HP	VOLTS	RPM	ROTATION	DIAMETER	DIMENSIONS		
						A	B	C
10858	1/5-1/2	115/230	1075	Rev	5-1/2	4.93	5.72	1/2
10859	1/2-1	115/230	1075	Rev	5-1/2	4.93	5.72	1/2
10860	1/5-1/2	115/230	1075	Rev	5-1/2	4.93	5.72	1/2
10861	1/2-1	115/230	1075	Rev	5-1/2	4.93	6.66	1/2
10865	1/3-1/2	115/230	1075	Rev	5-1/2	4.93	5.72	1/2
10866	3/4-1	115/230	1075	Rev	5-1/2	4.93	6.66	1/2
10867	1/8-1/3	115/230/277	1075	Rev	5	5.00	5.00	1/2
10868*	1/3-1/2	115/230	1075	Rev	5-1/2	4.93	5.72	1/2
10869*	3/4-1	115/230	1075	Rev	5-1/2	4.93	6.66	1/2

* Includes 08506 with the motor

Azure® Digi-Motor® Condenser Fan Applications

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Azure® is an electronically controlled motor (ECM) that replaces a multitude of applications. These motors cover ratings from 1/8 HP to 1/3 HP at 208-230V 825/1075 RPM and 1/3 HP to 1/2 HP 208-230V 825/1075 RPM and CW or CCW. These motors are simple to install. The Azure® condenser fan motors connect the same as a standard PSC condenser fan motor, BUT WITHOUT the capacitor. Just plug the motor into a 115V power source (using supplied programming cable) and select 1 of 4 operating modes and then install the motor:

- 1) 1075 RPM CW (LE) - Factory Default
- 2) 1075 RPM CCW (LE)
- 3) 825 RPM CW (LE)
- 4) 825 RPM CCW (LE)

Unlike other ECM motors, an outboard surge protector is included with the Azure® wiring harness. This is a replaceable device that is much less expensive to replace than replacing the entire motor in the event of a power surge.

Specifications:

- Multi horsepower, self-adjusting
- 825/1075 RPM, single speed
- Reversible rotation
- High efficiency ECM
- No capacitor required
- Water slinger on shaft
- UL Recognized
- For accessories see page M-5 and M-24

MARS NO.	HP	VOLTS	RPM	ROTATION	ORIENTATION	RHEEM HOLES	DIMENSIONS		
							A	B	C
10874	1/8 - 1/3	208-230	825/1075	Rev	Shaft Down	Yes	6.50	4.33	1/2
10870	1/3 - 1/2	208-230	825/1075	Rev	Shaft Up/Down	No	6.00	5.95	1/2
10875	1/8 - 1/3	208-230	1075	Rev	Horizontal	No	6.50	4.33	1/2
10872	1/3 - 1/2	208-230	1075	Rev	Horizontal	No	6.00	5.95	1/2

Azure® Variable Speed Motor Adapter

The Azure® Variable Speed Motor Adapter is a money saving solution to the expensive replacement of a failed OEM variable speed blower motor using an Azure® ECM motor. Simply move the OEM wire harnesses to the Azure® Variable Speed Adapter and connect the Azure® direct drive motor speed taps to the Azure® Variable Speed Adapter.

- Allows replacement of 2.0, 2.3, 2.5, and 3.0 variable speed communicating ECM motors
- Allows replacement of variable speed communicating ECM motors from Nidec / US Motors, and Emerson
- Eliminates wasted time & money locating OEM motor
- Allows replacement of all variable speed direct drive ECM 115V / 230V 1/3, 1/2, 3/4, 1HP (not for use to replace X13 style constant torque ECM)

MARS NO.	DESCRIPTION	AZURE® MOTOR COMPATIBILITY
08506	Variable Speed Motor Adapter	10865, 10866

